

# Flare Prediction Team

## Leads

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Leila Mays (Flare Scoreboard)

Sophie Murray (Flare Scoreboard)

## Goals

- Evaluate where we stand with solar flare prediction; define specific questions.
- Agree on different metrics that address the specific questions chosen.
- Provide a benchmark against which future models can be assessed.

# Complimentary Activities

## 'All Clear' Workshops

### A COMPARISON OF FLARE FORECASTING METHODS. I. RESULTS FROM THE "ALL-CLEAR" WORKSHOP

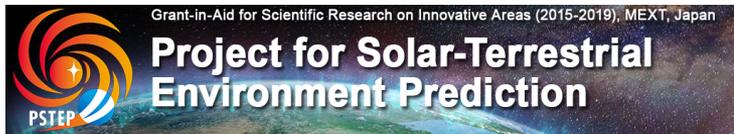
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## Flare Scoreboard

## ISEE/PSTEP Workshop



The screenshot shows the 'Flare Scoreboard' website. At the top, there is a logo for the 'COMMUNITY COORDINATED MODELING CENTER' and navigation links for 'About', 'Models at CCMC', 'Request A Run', 'View Results', 'Instant Run', 'Metrics and Validation', 'Education', 'R2O Support', 'Mission Support', 'Community Support', and 'Tools'. The main content area features a green heading 'Real-time Forecasting Methods Validation: Flare Scoreboard' and a small icon of a scoreboard showing '7/4'. Below the heading, there is a paragraph explaining that CCMC is implementing the 'Flare Scoreboard' with the UK Met Office and an international research community. It mentions that model/method developers upload their predictions to an 'anonymous ftp' which are then displayed on a graph of probability vs. time. There is a request for feedback via email to Sophie Murray, Masha Kuznetsova, and Leila Mays. A 'Latest News' section lists two items: the scoreboard is part of the Solar Flare Working Team and the agenda of the ESWW13 working meeting. A 'Flare scoreboard planning group' section lists leads: Sophie Murray (TCD), Jesse Adries, and Veronique Delouille (SIDC). It also lists participants: Mike Terkildsen, Graham Steward (Australia Bureau of Meteorology, Space Weather Services), K.D. Leka (NWSA), Jordan Guerra, Shaun Bloomfield (Northumbria University), Masha Kuznetsova, and M. Leila Mays (CUA/GSFC). At the bottom, there are logos for participating partners: Met Office, Royal Observatory of Belgium, RRA (Korean Space Weather Center), Australian Government Bureau of Meteorology, University of Bradford, and The University of Alabama in Huntsville.

# Session Discussion Highlights

## Session 1: Flare prediction methods and user needs

Meteorological forecasting

- Short-fuse warnings

Flare precursors

- Lack of simulations compared to other fields

Importance for SEP and CME forecasting

- Links with other teams, even substorms!

# Session Discussion Highlights

## Session 2: Validation metrics for flare prediction

Metrics quite well-established!

User needs

- False alarms vs misses
- Levels of threat subjective
- Case studies to justify funding

# Session Discussion Highlights

## Session 3: Fusion of flare prediction and validation methods toward the next generation of flare prediction capabilities

### Climatology

- Flare productivity at different times of solar cycle

### Data

- Vector vs line-of-sight magnetograms

### Future steps

- Use what we have already?
- Linking into next steps for the Flare Scoreboard
- XML, metadata, database formats

# Issues or Problems Impeding Progress

- Time and Resources!

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## Team plans for the rest of the week

- Open Session today @ 2pm, Salons II and III